



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,950	08/18/2003	Kazuhito Matsui	2842.17US01	4151

7590 12/29/2005

Douglas J. Christensen, Esq.  
Patterson, Thuente, Skaar & Christensen, P.A.  
80 South Eighth Street  
4800 IDS Center  
Minneapolis, MN 55402-2100

EXAMINER

KRAUSE, JUSTIN MITCHELL

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/642,950	MATSUI ET AL.	
	Examiner Justin Krause	Art Unit 3682	

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 07 November 2005.
- 2a) This action is **FINAL**.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-11 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-11 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 18 August 2003 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/18/2003</u> .	6) <input type="checkbox"/> Other: _____.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Species 1, consisting of claims 1-11 in the reply filed on November 7, 2005 is acknowledged.
2. Claims 12-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Claims 12-20 are subsequently cancelled pursuant to applicant's response filed November 7, 2005.

This Office Action is the first action on the merits, claims 1-11 currently pending.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "to select one of shift positions" which does not clearly define the shift positions. The phrase appears grammatically in error.

Claim 1 also recites the limitation "a non-contact type position detecting mechanism" which is indefinite and it is unclear what the scope of "non-contact" is. This phrase could be made definite by removing "type" from the claimed language.

Regarding claim 10, "magnetic type" is indefinite as it has an indefinite scope.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 1-7, 9 and 10, as best understood, is rejected under 35 U.S.C. 102(e) as being anticipated by Syamoto et al (US 2004/0237692).

Syamoto discloses a shifting device comprising:

- A housing (12)
- A shift lever (15) supported by the housing wherein the shift lever is moved along at least a first manipulation axis and a second manipulation axis to select one of shift positions (paragraph 0005), the first and second manipulation axes extending in different directions (See Fig 6, element 14)

- A non-contact type position detecting mechanism for detecting a shift position selected by the shift lever (Fig 6, 63a, 63b, 62, 96, 97, 93), wherein the relative positions between the detecting devices and the detection objective device are variable, wherein the position detecting mechanism detects the selected shift position according to the relative positions (paragraph 0065).

-A moving mechanism (23), which moves at least one of the group of the detecting devices and the detection objective device at least along a first movement axis and a second movement axis, the first and second movement axes extending in different directions.

Regarding claim 2, each detecting device outputs two different types of signals according to the relative positions between the detecting devices and the detection objective device wherein the detection objective device is formed such that a combination pattern of signals outputted by the detecting devices is changed according to the selected shift position and if one of the detecting devices malfunctions, the combination pattern of the remainder of the detecting devices is changed according to the selected shift position. (Paragraph 0065)

Regarding claim 3, the detection objective device is formed such that the signals outputted when the shift lever is at a forward position (+/-) are different from the signals outputted when the shift lever is at a reverse position (Paragraphs 0069-0074).

Regarding claim 4, the moving mechanism includes a first holder (55) and a second holder (64) wherein the first holder accommodates one of the group of detecting devices and the detection objective device and allows the accommodated devices or device to move along the first movement axis and wherein the second holder accommodates the first holder, and allows the first holder to move along the second movement axis.

Regarding claim 5, when the shift lever is moved along the first manipulation axis (front and rear, Fig 7) the detecting devices or the detection objective device are moved along the first movement axis in the first holder.

Regarding claim 6, the first manipulation axis is parallel to the first manipulation axis.

Regarding claim 7, when the shift lever is moved along the second manipulation axis, the first holder is moved relative to the second holder along the second movement axis.

Regarding claim 9, when the shift lever is moved along the first manipulation axis, the moving mechanism moves at least one of the group of the detecting devices and the detection objective device along the first movement axis and when the shift lever is moved along the second manipulation axis, the moving mechanism moves at least one of the group of the detecting devices and the detection objective device along the second movement axis.

Regarding claim 10, the position detecting mechanism is of a magnetic type.  
(Paragraph 0035)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Syamoto in view of Skogward (US Patent 6,415,677).

Syamoto discloses all of the claimed subject matter as described above.

Syamoto does not disclose a second manipulation axis that is different than the second movement axis.

Skogward teaches a shifter with a plate 111, which moves vertically (arrow 1') when the shifter (103) is rotated (arrow 1) to change the orientation of the detectors in order to correspond with shift positions. (see fig 1 and 5, Col 4 lines 5-16, Col 5, lines 40-54)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to convert rotational motion of the shift lever to vertical motion of the detecting devices or detection objective device as taught by Skogward and incorporate the motion into the device of Syamoto, the motivation being alteration of the orientation of the detectors with respect to the detection objective to correspond with selection of different shift positions.

8. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Syamoto in view of Fujinuma (US 2002/0056334).

Syamoto discloses all of the claimed subject matter as described above including the detection objective device being a magnet (62, 93)

Syamoto does not disclose the detecting devices as being hall elements.

Fujinuma teaches that a hall element or the like may be used to sense magnetism. (Paragraph 0046)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Syamoto and use hall elements as taught by Fujinuma to detect magnetism from the magnets. Syamoto uses a MRE (magneto-resistive effect element), which operates in a similar manner to a hall element.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5,243,871 discloses a multiple axis shift device using hall sensors

6,530,293 discloses a multiple axis shift device using hall sensors

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Krause whose telephone number is 571-272-3012. The examiner can normally be reached on Monday - Friday, 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMK  
12/21/05



RICHARD W. RIDLEY  
PRIMARY EXAMINER

SPE AU 3682